

EFFICIENCY OPTIMIZATION CONTROL
FOR PERMANENT MAGNET MOTOR DRIVE

ABSTRACT OF THE DISCLOSURE

A method and system for modifying an estimated rotor angle for improved efficiency in a PMSM drive system. A module monitors a run command, a torque command, and an estimated speed; and in response thereto, generates an output correction angle for modifying the estimated rotor angle. The output correction angle may be added to the estimated rotor angle. The output correction angle may be generated only for predetermined conditions of said run command, torque command, and speed. In particular, the output correction angle may be generated (1) when the run command is asserted, (2) when the torque command is above a predetermined level, and (3) when variations in the speed are within predetermined limits.